Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	**EB Docket No. 04-296**
	)	
Review of the Emergency Alert System	)	
	)	
	)	
	)	
	)	
	)	

COMMENTS OF INTRADO INC.

Intrado Inc. (Intrado)[1] hereby submits these comments in response to the Federal Communication Commission's (Commission) Notice of Proposed Rulemaking (NPRM) that examines the Emergency Alert System (EAS).[2] Specifically, the Commission seeks comment on whether EAS in its present form is the most effective mechanism for warning the American public of an emergency and, if not, on how EAS can be improved. The main objective of this NPRM is to seek comment on whether EAS as currently constituted is the most effective and efficient public warning system that best takes advantage of appropriate technological advances and best responds to the public's need to obtain timely emergency information.

DISCUSSION

EAS, in its current form, is an effective warning system; however, Intrado believes that the EAS can be materially improved with, among other things, utilization of existing communications technologies. Communications technologies have seen dramatic changes over the past 10 years, and the technology now exists to more effectively alert citizens.[3] Intrado's comments will focus on the technologies that have the most significant impact on maximizing the number of citizens that are alerted during times of emergency, as well as on the Commission's role for accomplishing this ultimate goal of an effective national warning system.

Wireline Telephone Alerting

In order to increase the footprint and effectiveness of the EAS, Intrado believes that the first step is to create a national voice alerting network, which would

---

[1] Founded in 1979, Intrado (NasdaqNM: TRDO) is the nation's leading provider of sophisticated solutions that identify, manage and deliver mission critical information for telecommunications providers and public safety organizations.

[2] Federal Communications Commission, *Notice of Proposed Rulemaking,* EB Docket No. 04-296 (rel. August 12, 2004).

[3] *See* Testimony of Dr. Peter Ward, United States Geological Survey Retired President, before the House Select Homeland Security Committee, Emergency Preparedness and Response Subcommittee (September 22, 2004).

be accomplished through the use of wireline telephones. There are over 183 million wireline telephone numbers in the United States, and approximately 98% of United States households have a wireline telephone.[4] Not only are telephone alerts an effective method to complement TV and radio, but alerts via wireline telephones are the most effective for the late evening and night hours when other methods of communication, such as TV and radio, may not be in use.

This national alert network would be created by establishing a centralized database and interoperability among the disparate voice calling platforms that exist today. The database should be available to federal, state and local government agencies. In addition, the database should be based on 9-1-1 data (which is the most accurate and comprehensive wireline telephone database available) and geo-coded so that each telephone number and address has longitude and latitude coordinates. This would enable targeted alerting to the greatest level of accuracy. In order for the system to have the capacity to alert major cities simultaneously, a voice alerting network integrator should be established to link together the current disparate calling platforms.

Creation of a national alert system will also require the development of standards to ensure that disparate alerting systems are able to interoperate with each other, enabling a seamless system that is connected on a nationwide basis. In order to accomplish this goal, consideration should be given to creating national standards for systems functionalities and operational effectiveness. Particular attention needs to be paid to requirements regarding port redundancy, congestion control and TTY/TDD capability for hearing impaired citizens.

Finally, in order to have the most effective wireline telephone alerting system, accurate and complete data is critical. Intrado recommends use of 9-1-1 data for emergency alerting purposes. Using this data will ensure that the alerting system reaches the most citizens in a given area. However, access to 9-1-1 data for alerting purposes is inconsistent throughout the US. Intrado recommends, therefore, that the Commission clarify that 47 USC § 222(g) authorizes use of 9-1-1 data for emergency notification purposes.

Wireless Voice and Data Alerts

To further improve alerting success in terms of percentage of affected citizens, wireless devices should be also be utilized in the EAS. There are approximately 170 million wireless subscribers in the US.[5] Additionally, individuals increasingly are adopting wireless technology as their primary communications mode. To ensure that EAS reaches as many people as possible, wireless devices should be incorporated into the EAS program. Due to the fact that there is no 9-1-1 equivalent database for wireless subscribers, like there is for wireline, Intrado provides the following suggestions for obtaining subscriber information from those users of wireless devices.

[4] Notice of Proposed Rulemaking, *EB Docket No. 04-296, at 13.*

[5] http://www.ctia.org/index.cfm, October 11, 2004.

Customer Provisioning Choices

Intrado recognizes that not all customers may want to participate in a telecommunications EAS program and suggests that there are two customer provisioning models which could be used to allow subscribers to control the delivery of alerts:

A. Opt-In – With the Opt-In model, wireless subscribers would need to "sign up" to have alerts delivered to their wireless devices. The sign-up can be accomplished through a web site, SMS (Short Message Service) receiver, Interactive Voice Response (IVR), or some other mechanism.

Advantages:

- Reduces appearance of spam-like messages; only those consumers interested in receiving the alerts will receive them.
- Allows subscribers to sign up for alert notifications in their geographic areas of interest (i.e., in the geographies frequented most often – commute route, work, home).

Disadvantages:

- May lead to an overall low adoption rate if relying on the wireless subscribers to sign up for the alerts.
- Must advertise in order to increase awareness and build subscriber base.
- Difficult to manage; unless there is tight integration with the wireless service provider's billing systems, system data would go stale as wireless subscribers migrate to other carriers or port their wireless telephone numbers.

B. Opt-Out – With the Opt-Out model, all customers within a target area would be notified unless they specifically requested to have their name/number excluded. As with opt-in, the removal request could be done through a web site, SMS receiver, IVR, or some other mechanism.

Advantages:

- All wireless subscribers are on the notification list until they opt out.

Disadvantages:

- May lead to the perception that alerts are spam if customers do not sign up on their own.

Notification List Options

Use of Notification lists (lists of subscribers for a targeted geographic area), are another means by which to target the subscribers in the area of the incident. The notification list must be segmented on the basis of geographic proximity to the incident. There are several methods available for the generation of the notification lists for wireless alert systems. Creating the notification lists for subscriber alerts can be achieved in a number of different manners, which are outlined below:

A. Wireless Service Provider (WSP) List – In this instance, the WSP would create a notification list of its subscribers through either a periodic update or

continuous feed. The notification list would include NPA-NXX-XXXX and some location area information, such as a zip code. The list would be the basis for sending out targeted notifications.

Advantages:

- Location information is assumed to be accurate and generally based on the location where the subscriber is most often.
- A WSP-generated list ensures that network resources are not tied up attempting to send messages to non-existent subscribers.
- WSP lists will also provide the mobile number-to-WSP relationship information.

Disadvantages:

- Substantial resources needed to maintain and update notification lists
- Difficult to manage feeds
- Potential for release of confidential information from carriers network

B. Rate Center-Based Call List – With a Rate Center-based call list, the notification list is generated from the active subscribers within the NPA/NXX's ranges and within selected rate centers. Specific WSPs are able to be determined by cross-referencing the Local Number Portability (LNP) and routing databases.

Advantages:

- Does not require the generation of customer lists from the WSP billing systems.

Disadvantages:

- The rate center of the wireless numbers may have no relationship to the location of wireless subscriber.
- Inactive numbers cannot be distinguished from active numbers.

C. Location Enabled – There are many variations of location-enabled notification lists including cell broadcast, location querying, and predictive location.

Advantages:

- Allows for the targeting of only those subscribers in a defined geographic area (by cellular region or even more granular – "geofence").

Disadvantages:

- Location of all devices is not technically feasible today; finding all phones in a geographic area, cross-WSP, is not possible at this time.
- Cell broadcast could be utilized on some networks, but currently any devices that support this feature have disabled the cell broadcast feature by default. Cell broadcast also requires the development for those technologies that do not currently support it.

Given current technical limitations and operational difficulties, the best approach today for wireless alerting is to utilize a notification list based on rate center. Combining notification lists with an opt-out customer provisioning methodology, for

those not interested in receiving the alerts, makes the notification service even more flexible. As the technology becomes available and implementation issues are resolved, the wireless service providers and emergency management offices (entities responsible for sending out the emergency alerts) would be able to implement the location-enabled component of the solution.

CONCLUSION

Intrado sees great opportunity for the Emergency Alert System to be improved and to become more effective in saving lives and property. Intrado is not advocating that the EAS be replaced. Rather, we believe that it can be enhanced by incorporating additional communication services that will reach the most possible number of people in the event of an emergency. In order for this to happen more efficiently, Federal coordination is necessary. In particular, Intrado recommends that the Commission:

- Clarify that 9-1-1 wireline telephone data should be available for emergency notification purposes.
- Monitor the progress of wireless carriers and associated companies in the development and utilization of wireless customer broadcast.
- Require the establishment of standards, through an appropriate standards body, to ensure interoperability of local alerting systems.
- Encourage development of a nationwide alert system of the telecommunications capabilities of wireline voice/data and wireless voice/data.

Respectfully Submitted,

/s/_____

Mary A. Boyd
Vice President Government and External Affairs
Intrado Inc.
1601 Dry Creek Drive
Longmont, Colorado 80503
Telephone: (720) 494-5800
Facsimile: (720) 494-6600

Dated: October 29, 2004